Abstract

Method of management in a circuit-switched communication network (1), performed on or with the aid of at least a programmable apparatus (10) connected to said network. It comprises the step of computing and storing in an electronic memory a representation of the network based on B-blocking islands (Ni). Each B-blocking island consists of a set of nodes (A-G) linked in a such a way that at least one route with at least an amount B of available concave resources exists between any pair of nodes in the set at the time t. The B-blocking islands (Ni) are organised in a hierarchy, wherein the hierarchical position of each B_i-blocking island depends on the choice of the values B_i used for defining said blocking island. The available bandwidth resources are thus summarised in order to reduce the complexity of network management tasks. Bottlenecks in the network are highlighted. The B-blocking-island hierarchy can be incrementally maintained.

Applications: distributed or centrally managed routing, price procedures, distributed management with distributed agents, network planning and explanation of allocation failures.

(Figure 4)